

DEPARTMENT OF DEFENSE

UNITED STATES ARMY

DRAFT FINDING OF NO PRACTICABLE ALTERNATIVE (FONPA)

FOR

REPLACEMENT OF A BRIDGE AT TAYLOR'S CREEK, FORT STEWART, GEORGIA

1.0 INTRODUCTION

Fort Stewart, Georgia (FSGA) is the largest Army Installation east of the Mississippi River, covering approximately 280,000 acres in parts of Liberty, Long, Bryan, Evans, and Tattnall counties in Georgia. It also includes 5,400 acres of land on the associated Hunter Army Airfield (HAAF), located 41 miles to the east and adjacent to the City of Savannah, Georgia (FONPA Figure 1). In 1999, the Army at Fort Stewart/Hunter Army Airfield (FS/HAAF) entered into a Memorandum of Understanding (MOU) with the GA Department of Transportation (GA DOT) regarding the operation and management of the (GA) state highway system on the Installation, to include all existing and future roads, bridges, and rights-of-way (ROW). This MOU identified the roles and responsibilities for each party, as well as establishing methods of coordination and communication for major actions impacting the state highway systems on these lands by either party.

Georgia State Road (SR) 119 is an 81-mile-long highway that runs north-south through central Georgia, including a portion that runs directly through the center of FSGA. It is maintained by the GA DOT and is a contributor to the National Highway System (NHS), a network of strategic highways within the United States that serve major airports, ports, rail or truck terminals, railway stations, pipeline terminals and other strategic transport facilities. Together, this system constitutes the largest highway system in the world, and states are encouraged to focus federal funds on improving the efficiency and safety of this network, making SR 119 a priority route both on and off the Installation.

The GA DOT's Office of Bridge Design and Maintenance develops and maintains plans for bridge improvement projects, conducts emergency repairs and replacements, performs reviews for permits, and evaluates damage to bridges and conducts numerous bridge inspections to ensure bridge structures meet the highest safety standards. All work is conducted in accordance with the GA DOT 2018-2021 Statewide Transportation Improvement Plan (TIP) (2017). During its 2017 review process, it was determined that the current bridge over Taylor's Creek, located on FSGA, was in need of replacement (FONPA Figure 2). Although it was rated as generally good in its last GA DOT inspection, excessive scouring was identified in places and the bridge was determined to have an unknown foundation. These factors combined to make it a priority to replace the bridge.

2.0 NOTICE OF FLOODPLAIN AND WETLAND INVOLVEMENT

Executive Order (EO) 11988, *Floodplain Management*, requires federal agencies to determine whether a proposed action will occur within a floodplain and to avoid floodplains to the maximum extent possible when there is a practicable alternative. The 100-year floodplain is defined as an area adjacent to a water body that has a 1 percent or greater chance of inundation in any given year. EO 11990, *Protection of Wetlands*, requires that each federal agency, to the extent permitted by law, “shall avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds: (1) that there is no practicable alternative to such construction and (2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.” The term “wetlands” means “those areas that are inundated by surface or ground water with a frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction.”

It has been determined that development within floodplains and wetlands can impact these natural resources via the loss or degradation of their natural functional benefits such as water storage, infiltration, and filtration. These impacts extend to the intrinsic value of these resources or the benefits associated with their use, such as wildlife habitat, recreation, and aesthetic enjoyment. Floodplain and wetland functions and values are also susceptible to changes in the volume, rate, and quality of stormwater discharge, particularly as influenced by the amount of impervious surface within a watershed.

Replacement of the Taylor’s Creek Bridge will occur within wetlands and the 100-year floodplain. Therefore, a Record of Environmental Consideration (REC) and this Draft FONPA were prepared to document anticipated environmental impacts. The 15 day public review period for this action was initiated with publication of a Notice of Availability in *The Savannah Morning News*, *The Coastal Courier*, and *The Frontline*. During this review period, the REC and Draft FONPA are available on the Installation webpage (<https://home.army.mil/stewart/index.php/about/Garrison/DPW/environmental/prevention-and-compliance/nepa>).

3.0 PROPOSED ACTION AND PURPOSE AND NEED

The GA DOT propose to replace the bridge that crosses Taylor’s Creek on SR 119 on FSGA. The purpose of the proposed action is to remedy the structural deficiencies and safety concerns identified on this bridge at this location in the 2017 GA DOT inspection. This action is needed to ensure safe travel along SR 119. This project complies with the 2018-2021 GA Statewide TIP, Pavement and Bridge Condition Measures, and will be conducted in compliance with all federal, state, and Installation laws, regulations, and policies, to include GA DOT requirements.

4.0 DESCRIPTION OF THE PROPOSED ACTION AND DISCUSSION OF ALTERNATIVES

The GA DOT proposes to replace the bridge over Taylors Creek on SR 119 located on Fort Stewart in Liberty County, Georgia. The bridge is approximately 0.4 miles in length and will be removed and replaced, as will its associated guardrail, anchors, and guardrail pads.

4.1 Alternatives Selection Criteria

To aid in the development of alternatives, the GA DOT developed screening criteria by which to assess whether an alternative would meet its purpose and need and could therefore be considered viable and reasonable. These criteria were used to develop and evaluate a range of reasonable alternatives.

Minimize disruptions to the NHS. Alternatives must minimize interruption of service to SR 119, which is a part of the NHS.

Minimize potential environmental impacts. Alternatives must minimize potential environmental impacts to the existing environment.

Remain within existing rights of way (ROW). Alternatives must occur within an existing ROW held by the GA DOT.

4.2 Alternatives Considered and Dismissed

Bridge Realignment. Under this alternative, the GA DOT would realign/relocate the bridge from its current location over Taylor's Creek to another site along SR 119 and detour traffic from this location to an off-site route. This alternative was deemed not feasible because it would require a new, possibly larger, and permanent ROW from the Army, FS/HAAF, as well as the termination of the existing ROW where SR 119 currently crosses Taylor's Creek on FSGA. This would result in the interruption of service along a NHS route, for an unknown period of time, at an undetermined location, and with undetermined, potentially significant, impacts to the environment. This did not meet any of the screening criteria. Accordingly, this was determined to be not feasible, and this alternative was not carried forward for detailed analysis.

Off-Site Detour. Under this alternative, the GA DOT explored locations to which it could detour traffic on SR 119 while the new bridge was constructed in the footprint of the existing bridge at Taylor's Creek. This alternative required minimal-to-no additional easement and potentially minimal-to-no environmental impacts via construction; however, it required a 50-mile or more off-site detour from a priority NHS route, which did not meet the screening criteria to minimize disruption to the NHS system. Accordingly, this was determined to be not feasible, and this alternative was not carried forward for detailed analysis.

4.3 Alternatives Subject to Further Analysis

On-Site Detour and Temporary Bridge. Under this alternative, a new bridge would be built in the footprint of the existing bridge at Taylor's Creek. As part of the work, the GA DOT would first construct a temporary detour lane and temporary bridge directly adjacent to the existing bridge (see details in the attached REC for this action). This temporary system would be utilized by travelers while the existing bridge is demolished and the new bridge is constructed. This would enable travel on SR 119 to continue relatively uninterrupted. Temporary construction would include a temporary extension of the GA DOT's existing ROW from 100 feet to 150 feet to accommodate construction; however, it does not require a timely extension process compared to a new ROW request. Accordingly, this alternative met the screening criteria and was carried forward for further analysis. This alternative was ultimately selected as preferred.

No Action/Status Quo. Under the No Action Alternative, no replacement would occur and the bridge would continue to be used in its current condition. This alternative is not feasible, due to the structural deficiencies and safety concerns at this location that were identified in the 2017 bridge inspection. This accordingly, does not meet the purpose and need for the proposed action; however, it was analyzed to provide a baseline for evaluating the impacts of the action alternatives, as directed in the National Environmental Policy Act (NEPA) Council on Environmental Quality regulations, and 32 CFR Part 651, *Environmental Effects of Army Actions*.

4.4 Impacts and Minimization Measures

The proposed action will impact 1.47 acres of wetlands and 4.82 acres of the 100-year floodplain (FONPA Figures 3 and 4). The GA DOT has obtained a Clean Water Act (CWA) Regional Permit #32, Replacement of Bridges with Bridges, and has purchased 11.44 wetlands mitigation credits from Yam Grandy Mitigation Bank to offset impacts (see the Wetland Permit correspondence at Tab 2 in the attached REC). The Section 404 Permit for this action is pending determination of a start date for construction but will be obtained prior to taking any action at the site. All permits and mitigation credit purchases were made by the GA DOT Office of Environmental Services, and were made in coordination with the FS/HAAF Floodplains and Wetlands Point of Contacts (POCs) and the U.S. Army Corps of Engineers-Regulatory Branch, Savannah, GA. Installation master planners, environmental specialists, and the user worked proactively during the siting phase to shift construction out of and/or away from the floodplain and wetlands, to the best of their ability. Non-floodplain and wetlands impacts were also addressed and are available in the attached REC prepared for this action.

EO 11988 states that if the only practicable alternative requires siting in a floodplain, the agency shall, prior to taking action, design or modify its action to minimize potential harm to or within the floodplain, and all new construction shall be designed to reduce the risk of flood loss and to minimize the impact of floods on human safety, health, and welfare. The GA DOT is maximizing this effort by constructing the replacement bridge within its existing footprint. Although some new impacts will occur during construction of the temporary detour and temporary bridge, they were determined to be minimal compared to construction of an all-new bridge at an alternative location.

EO 11990 requires that the proposed action include “all practicable measures to minimize harm 132 to wetland[s].” The GA DOT has proactively obtained the CWA Permit #32 and purchased wetlands mitigation credits in anticipation of known wetland impacts at the location of the proposed action, and will obtain the CWA Section 404 Permit once a construction start date is obtained. Adherence to avoidance, mitigation, and compensation measures specified in the permits is required, to include all practicable measures available to ensure that wetland impacts are mitigated to the extent possible.

Approximately 120,000 acres of FSGA consists of floodplains and 90,000 acres consists of wetlands. In many locations, these resources are interconnected and the Installation resource managers are adept at ensuring impact minimization measures address both. Best Management Plans (BMPs) and other measures that will be incorporated into the Proposed Action to avoid or minimize impacts on these resources are collectively described below:

- Impacts to wetlands will be accounted for via permits; however, wetland areas that are not permitted will be avoided during the work associated with the bridge repair, and overall water quality analysis will be monitored via routine sampling of the site by the FS/HAAF Wetlands and Floodplains POCs.
- The pre-construction notification for the Regional Permit #32 has been obtained (see Tab 2 in the attached REC). The FS/HAAF Wetlands POC will assist in the completion of the CWA Section 404 permitting requirements and the FS/HAAF Stormwater/E&S POC will assist in obtaining stormwater permitting. All permitting must be complete/approved prior to commencing any work for this action.
- Project-specific permitting and the establishment of site-specific erosion control BMPs will be identified and must be implemented from site preparation and timber harvest through construction and site closure. BMPs will be identified in advance on an erosion and sedimentation (E&S) pollution control plan (ESPCP) developed by the GA DOT and must be utilized at all times. The site of the proposed work will be inspected by the GA DOT and FS/HAAF Floodplain, Wetlands, and Stormwater POCs periodically for adequacy.
- Floodway encroachment, including structures and fill, is prohibited unless certification with supporting technical data is provided by a professional engineer (P.E.) registered in the State of Georgia demonstrating the encroachment will not result in any increase in flood elevations upstream or downstream. The P.E. has documented the hydrological analysis for this project in its site-specific ESPCP and the FS/HAAF Stormwater/E&S and Floodplain POC ensured it incorporated appropriate post construction stormwater BMPs during the duration of the project, ensuring the state and federal requirements are met for floodplain encroachments and flood controls, inclusive of the runoff reduction and water quality requirements.
- The GA DOT will work with the FS/HAAF Environmental Office, and within the limits of the associated permits, to ensure impacts to surface waters, streambanks, and associated wetlands and floodplains will be minimized. FS/HAAF Wetlands and Floodplains POCs will be actively engaged in monitoring the progress of this construction, to include routine inspections to ensure all proposed minimization and mitigation measures are being implemented and are functioning properly. Should additional minimization/mitigation measures be required, additional coordination will occur and measures will be adjusted.
- State of Georgia requirements to elevate structures one-to-three feet above the base flood elevation of the 100-year floodplains is not practical for this project as the replacement bridge and detour bridge will be constructed directly within the floodplain; however, all work can and will employ impact minimization measures when working within these sensitive resources. For example, construction within the floodplain and wetlands will include timber platforms and mats to reduce ground pressure from the use of heavy equipment wherever feasible. This will substantially reduce the potential for rutting, erosion, and other impacts in the floodplain and associated wetlands.

5.0 FINDING OF NO PRACTICABLE ALTERNATIVE

During development of the proposed action to replace the bridge on Taylor's Creek, the GA DOT worked proactively with the FS/HAAF Environmental Office to ensure the purpose and need were met while avoiding as many potential impacts to floodplains and wetlands on the Installation as practicable. Due to operational requirements, it was determined that complete avoidance of floodplains and wetlands was not feasible; however, the preferred Alternative (*On-Site Detour and Temporary Bridge*) minimizes potential impacts to the greatest degree practicable while also achieving the required results. As such, the Army has determined there are no practicable alternatives to avoiding development within floodplains and wetlands on FSGA.

Following a thorough evaluation of alternate plans that would satisfy the purpose and need for the Proposed Action, I find that there is no practicable alternative to siting the Proposed Action entirely outside of floodplains and wetlands. Therefore, the Army will ensure that all practicable measures to minimize impacts to and within the floodplain environment and to minimize harm to wetlands are incorporated into the Proposed Action.

Date

Mr. Paul D. Cramer
Deputy Assistant Secretary of the Army
Installations, Housing & Partnerships

Attachments: Figure 1: Location of Fort Stewart and Hunter Army Airfield, Georgia.
Figure 2: Location of State Road 119 and Taylor's Creek on Fort Stewart, Georgia.
Figure 3: Wetlands at State Road 119 and Taylor's Creek on Fort Stewart, Georgia.
Figure 4: Floodplain at State Road 119 and Taylor's Creek on Fort Stewart, Georgia.
Record of Environmental Consideration for Replacement of Taylor's Creek Bridge

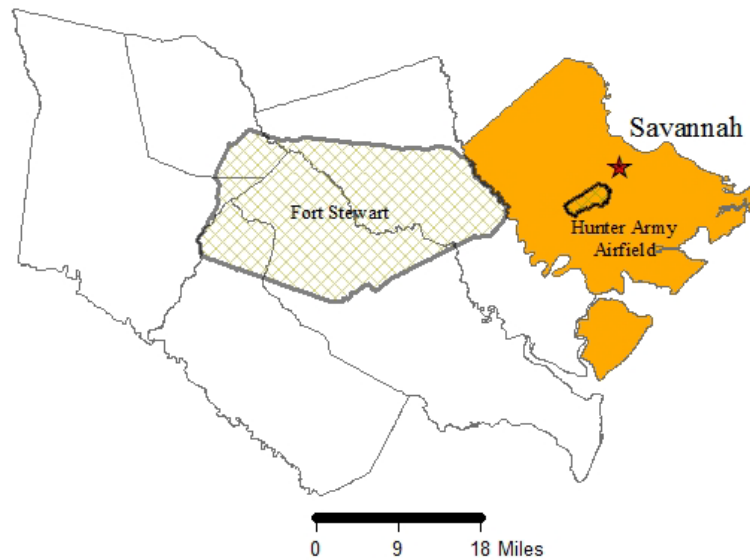
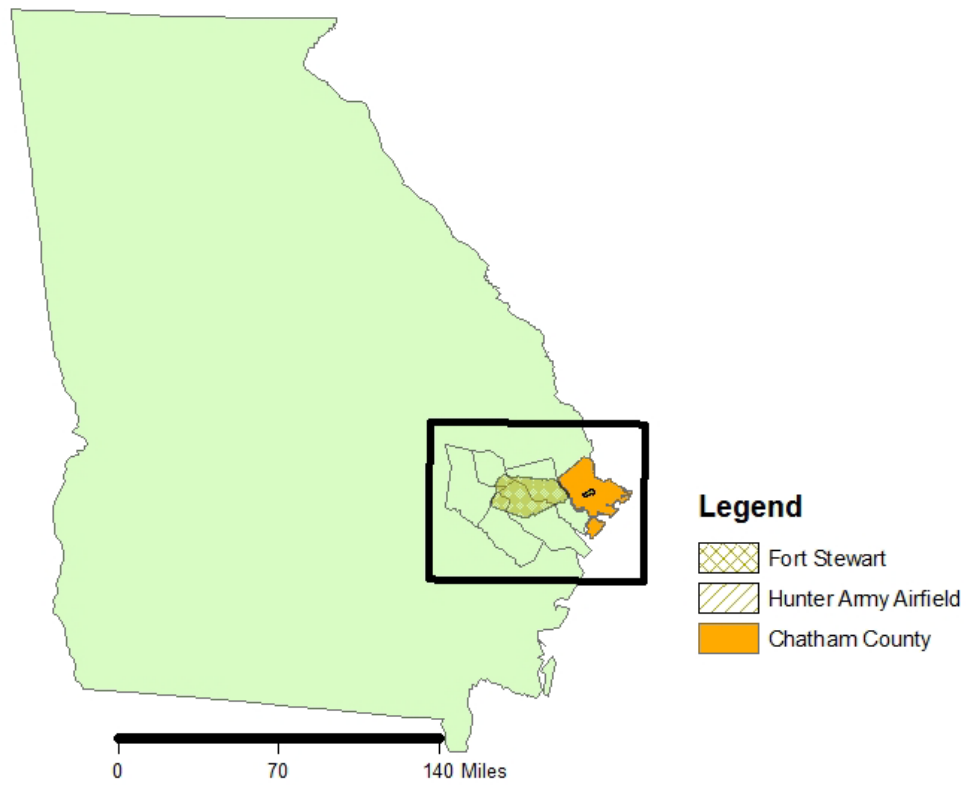


Figure 1: Location of Fort Stewart and Hunter Army Airfield, Georgia

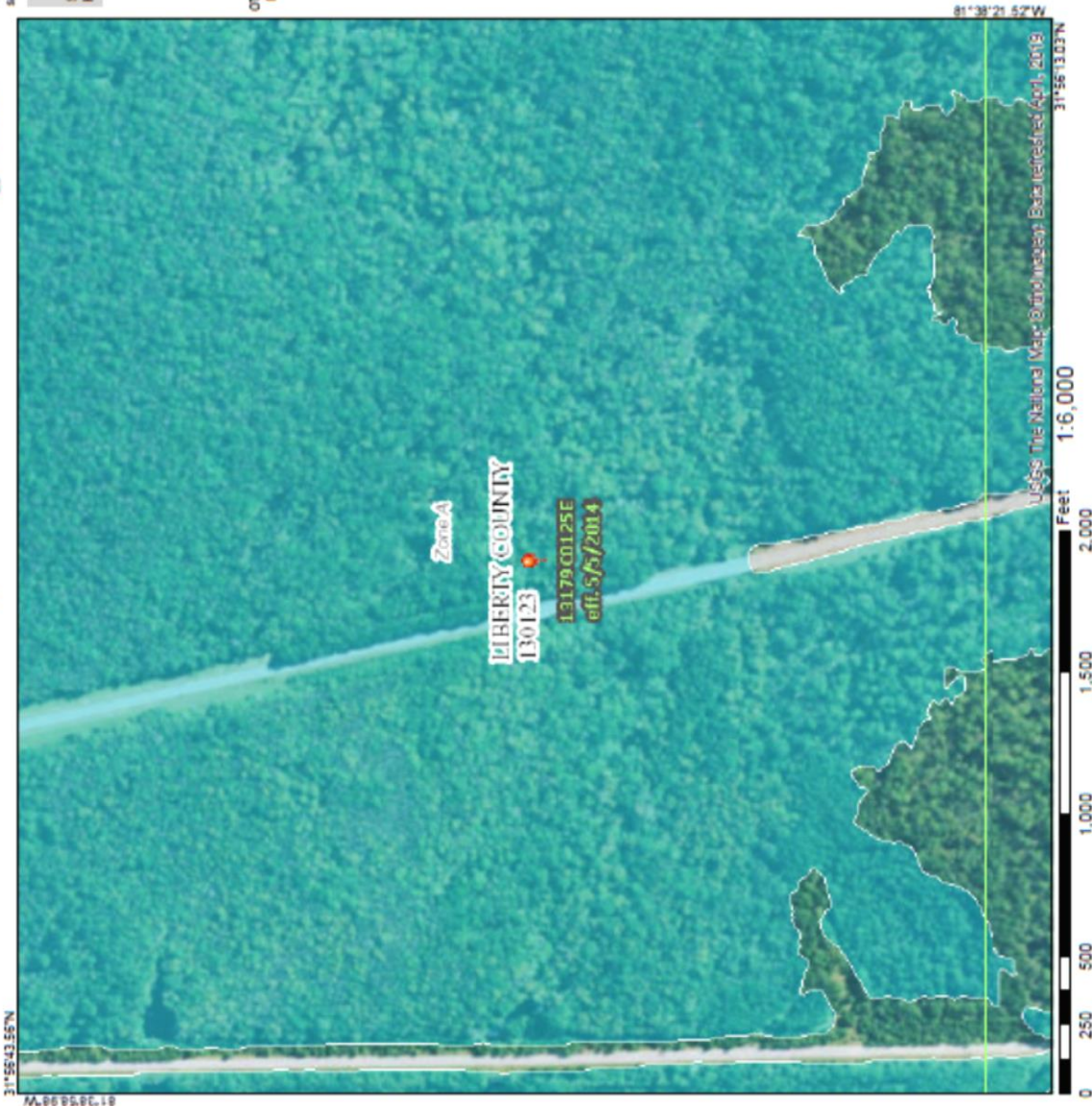
FIGURE REDACTED

Figure 2: Location of State Road 119 and Taylor's Creek Bridge on FS

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Figure 3: Wetlands at SR 119 and Taylor's Creek, FS

National Flood Hazard Layer FIRMette



Legend

SEE FIRM REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
 Without Base Flood Elevation (BFE) Zone A, V, AE
 With BFE or Depth Zone AE, AO, AH, VE, AP
 Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
 Future Conditions 1% Annual Chance Flood Hazard Zone X
 Area with Reduced Flood Risk due to Levees, See Notes, Zone X
 Area with Flood Risk due to Levees Zone D

OTHER AREAS
 Area of Minimal Flood Hazard Zone X
 Effective LOMs
 Area of Undetermined Flood Hazard Zone D
 Channel, Culvert, or Storm Sewer
 Levee, Dike, or Floodwall

OTHER FEATURES
 Cross Sections with 1% Annual Chance
 Water Surface Elevation
 Coastal Transect
 Base Flood Elevation Line (BFE)
 Limit of Study
 Jurisdiction Boundary
 Coastal Transect Baseline
 Profile Baseline
 Hydrographic Feature

MAP PANELS
 Digital Data Available
 No Digital Data Available
 Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

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Figure 4: Floodplains at SR 119 and Taylor's Creek, FS